FOREST INSECT CONDITIONS IN THE McARTHUR-BURNEY FALLS STATE PARK

Season of 1946

INTRODUCTION

The McArthur-Burney Falls State Park contains about 340 acres and is located in Shasta County about 11 miles north of the town of Burney on State Highway number 89. The timber type in this park is principally pure ponderosa pine in the high use camping, picnic and administrative use area, and mixed fir and pine in the gorge area below the falls. This State Park, in its forest setting, represents one of the outstanding scenic attractions in the West and is visited and used by many thousands of visitors annually. Prior to 1944 insect losses in this park were moderate, usually occurring as single scattered infested trees which did not seriously mar the beauty of the area. In 1944 a serious epidemic occurred in the Park and over much of the surrounding area adjacent on the Burney Flat area. This particular epidemic was dominated by the California five-spined engraver beetle, Ips confusus in association with the western pine beetle, Dendroctonus brevicomis. Whereas the character of the previous loss had been in old decadent and weakened trees, the 1944 loss was concentrated in thrifty young poles and trees.

Losses in 1944

On December 27, 1944, R.C. Hall and C.E. Startt of the Berkeley Forest Insect Laboratory, assisted by R.E. Coon and E.J. Pool of the California State Division of Beaches and Parks, made an insect survey of the McArthur-Burney Falls State Park and spotted 92 infested trees in this area. Following this a direct control project was recommended to and approved by the California State Division of Beaches and Parks and control was carried on in this area during the spring of 1945. At the same time recommendations for control were made to all of the owners of timber land adjoining the Park. The U.S. Forest Service and the Fruit Growers Supply in cooperation with the California State Division of Forestry approved these recommendations and control was carried on on all except a small parcel of land owned by the Pacific Gas and Electric Company. This control job extended from the Park south to U.S. highway route no. 299 and was bounded on the west by Long Valley Mountain and on the east by the Hat and Pit rivers. During the control job in the Park area an additional 24 late fading infested trees were spotted and treated, bringing the total infested trees to 116 for the 1944 season.

Losses in 1945

On January 28, 1946, C.E. Startt assisted by E.J. Pool made a survey of the Park area and spotted 10 infested trees killed during the 1945 summer season. This represented a reduction of about 90 percent over the number

of infested trees the previous season and indicated a very effective job of direct control. Following the spotting, maintenance control was recommended for the Park area and either sanitation salvage or direct control for the land adjoining the Park. The U.S. Forest Service and the P.G. & E. Company elected to carry on direct control and the Fruit Growers Supply Company carried on a sanitation salvage control job on the area within the Park Maintenance zone. The California State Division of Forestry cooperated inthe control project on private land.

Losses in 1946

On November 22, 1946, R.C. Hall and E.J. Pool made a further survey of the Park and were able to find only one infested tree on the whole area. This extremely low loss in a year when losses were generally increasing in areas where no control work was undertaken again demonstrated a very effective job of control in the Park.

CONTROL RECOMMENDATIONS FOR THE 1946 INFESTATION

As was pointed out above, there were 116 infested trees in the McArthur-Burney Falls Park in 1944. Following control of these trees the infestation in 1945 was only 17 infested trees. These 17 trees were controlled and the 1946 infestation had been reduced to only one infested tree. This appears to show that the control work carried on in and adjacent to the Park has afforded very effective protection for this area. It is recommended that further maintenance control be continued in the Park to treat the one tree found and any trees that may show up during the winter months. The U.S. Forest Service is planning a sanitation salvage control job on their land which adjoins the Park and this together with the sanitation salvage job by the Fruit growers Supply Company of the previous season should afford ample protection to the Park area during the 1947 season.

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